

Listing of Claims

1. (Currently Amended) A method for increasing use time of a battery of a mobile station (MS) of a communication system, comprising:

identifying a use of the MS ~~a plurality of mobile stations~~ based on ~~uses thereof~~
subscriber information stored in a network circuit, said identifying being performed by the
network circuit or another network circuit;

determining a slot cycle index value for the MS based on said use;

transmitting the slot cycle index value to the MS;

setting the ~~a~~ slot cycle index value in the MS ~~of each of the mobile stations~~
~~according to the uses;~~ and

retrieving slots of a paging channel in the ~~each~~ MS according to the set slot cycle
index value.

2. (Original) The method of claim 1, wherein the slot cycle index value is a positive
number of 0 to 7.

3. (Canceled)

4. (Currently Amended) The method of claim 1, ~~wherein said setting the slot cycle index value comprises further comprising:~~
~~deciding the slot cycle index value in an upper system;~~
~~thereby transmitting the slot cycle index value to the MS;~~
~~reporting receipt of the slot cycle index value to a user of the MS;~~
setting the received slot cycle index value when a message input from the user indicates changes of a retrieval period;
~~reporting completion of setting the slot cycle index value to an the upper system; and~~
storing the slot cycle index value into a slot cycle index field of a retrieval period information table for the MS in the upper system.

5. (Currently Amended) The method of claim 4, wherein the slot cycle index value is stored in a certain field of an order message transmitted through a paging channel, ~~and then transmitting the message to the MS.~~

6. (Currently Amended) The method of claim 1, wherein said retrieving the slots of the paging channel comprises:
~~setting the slot cycle index value that is periodically transmitted to the MS from the upper system as a maximum value;~~

comparing the slot cycle index value ~~received from the upper system with the set~~
transmitted based on the identified use with a slot cycle index value previously transmitted to
and set in the MS; and

choosing a smaller value; and

retrieving the slots of the paging channel as the MS transitions from a sleep state
to an active state according to the chosen slot cycle index value.

7. (Currently Amended) A method for increasing use time of a battery of a mobile
station (MS) of a communication system, comprising:

setting a retrieval period of slots of a paging channel according to a use of the MS;
wherein said use is one indicated by subscriber information registered in a network circuit and
wherein the retrieval period is set based on the following equation:

$$\text{Retrieval Period} = N * 2^{\text{SCI}} * T$$

where N is a first constant value, SCI corresponds to the set slot cycle index value, and T is a
second constant value equal to a predetermined slot period;

registering the retrieval period in an upper system; and

retrieving the slots of the paging channel as the MS transitions from a sleep state
to an active state in the registered retrieval period.

8. (Original) The method of claim 7, wherein said registering the retrieval period comprises:

setting a slot cycle index value corresponding to the retrieval period in the MS;
transmitting the set slot cycle index value to the upper system; and
storing the slot cycle index value into a slot cycle index field of a retrieval period information table for the MS in the upper system.

9. (Original) A method for increasing use time of a battery of a mobile station (MS) of a communication system, comprising:

identifying one or more uses of the MS based on a subscriber information of the MS in an upper system;
deciding a retrieval period of a paging channel of the MS according to the uses, and transmitting information indicative of the retrieval period to the MS;
setting the retrieval period in the MS;
registering the set retrieval period in the upper system; and
retrieving the paging channel in the MS as the MS transitions from a sleep state to an active state in the registered retrieval period.

10. (Original) The method of claim 9, wherein said setting the retrieval period comprises:

receiving a message in which a slot cycle index value corresponding to the retrieval period is stored from the upper system;

reporting receipt of the message to a user; and

setting the received slot cycle index value when a message input from the user indicates of change of a retrieval period of the paging channel.

11. (Original) The method of claim 10, wherein the slot cycle index value is stored in a certain field of an order message.

12. (Original) The method of claim, 9, wherein said registering the retrieval period comprises:

setting the slot cycle index value corresponding to the received retrieval period in the MS, and then reporting completion of the setting to the upper system; and

storing the slot cycle index value into a slot cycle index field of a retrieval period information table for the MS in the upper system.

13. (Original) The method of claim 7 or 9, wherein retrieving the paging channel comprises:

setting the slot cycle index value that is periodically transmitted to the MS from the upper system as a maximum value;

comparing the slot cycle index value received from the upper system with the set slot cycle index value, and choosing a smaller value; and

retrieving the slots of the paging channel in the retrieval period.

14. (Currently Amended) A method for ~~controlling increasing use time of a battery of~~ a mobile station (MS) of a communication system, comprising:

identifying a plurality of mobile stations based on uses thereof ~~by~~:

- (a) searching subscriber information stored in at least one network circuit, and
- (b) determining uses of the mobile stations based on the searched subscriber information, the subscriber information indicating a use of a first mobile station different from a use of a second mobile station; and

determining a slot cycle index value for the first mobile station based on the use of the first mobile station determined in (b);

determining a slot cycle index value for the second mobile station based on the use of the second mobile station determined in (b);

transmitting the slot cycle index values to the first and second mobile stations; and
setting slot cycle index values ~~in~~ of the first and second mobile stations according
to the uses.

15. (Original) The method of claim, 14, wherein the slot cycle index value is a positive
number of 0 to 7.

16. (Currently Amended) The method of claim 14, wherein said ~~identifying the mobile~~
~~stations comprises~~ setting includes:

setting the first and second mobile stations to different retrieval periods of ~~the~~
slots of respective ~~the~~ paging channels ~~to different ones~~ based on the slot cycle values
transmitted to the first and second mobile stations ~~said uses.~~

17. (Canceled)

18. (Canceled)

19. (Currently Amended) The method of claim 14 ~~18~~, wherein the slot cycle index
values are included in ~~is included in an~~ order messages transmitted to the first and second mobile
stations.

20. (New) The method of claim 1, wherein the slot cycle index value is set in the MS based on a message received from a user of the MS, said message authorizing the MS to change a slot cycle index value previously stored in the MS to the transmitted slot cycle index value.

21. (New) The method of claim 1, wherein said use is servicing a call.

22. (New) The method of claim 1, wherein said use is a position-tracing use.

23. (New) The method of claim 1, wherein said use is transmitting a character message.

24. (New) The method of claim 1, wherein the stored subscriber information includes billing information stored in a billing center.

25. (New) The method of claim 1, wherein the stored subscriber information includes registration information stored in a home location register.

26. (New) The method of claim 1, wherein said retrieving includes:
computing a retrieval period for a paging channel as follows:

$$\text{Retrieval Period} = N * 2^{\text{SCI}} * T$$

where N is a first constant value, SCI corresponds to the set slot cycle index value, and T is a second constant value equal to a predetermined slot period.

27. (New) The method of claim 1, wherein the network circuit or said another network circuit is selected from a message switching center, a base station, or a home location register.

28. (New) The method of claim 14, wherein the slot cycle index value is set in the first and second mobile stations based on messages received from users of the first and second mobile stations MS, each of said messages authorizing a respective one of the first and second mobile stations to change a slot cycle index value previously stored to the transmitted slot cycle index value.

29. (New) The method of claim 14, wherein the stored subscriber information includes billing information stored in at least one billing center.

30. (New) The method of claim 14, wherein the stored subscriber information includes registration information stored in at least one home location register.